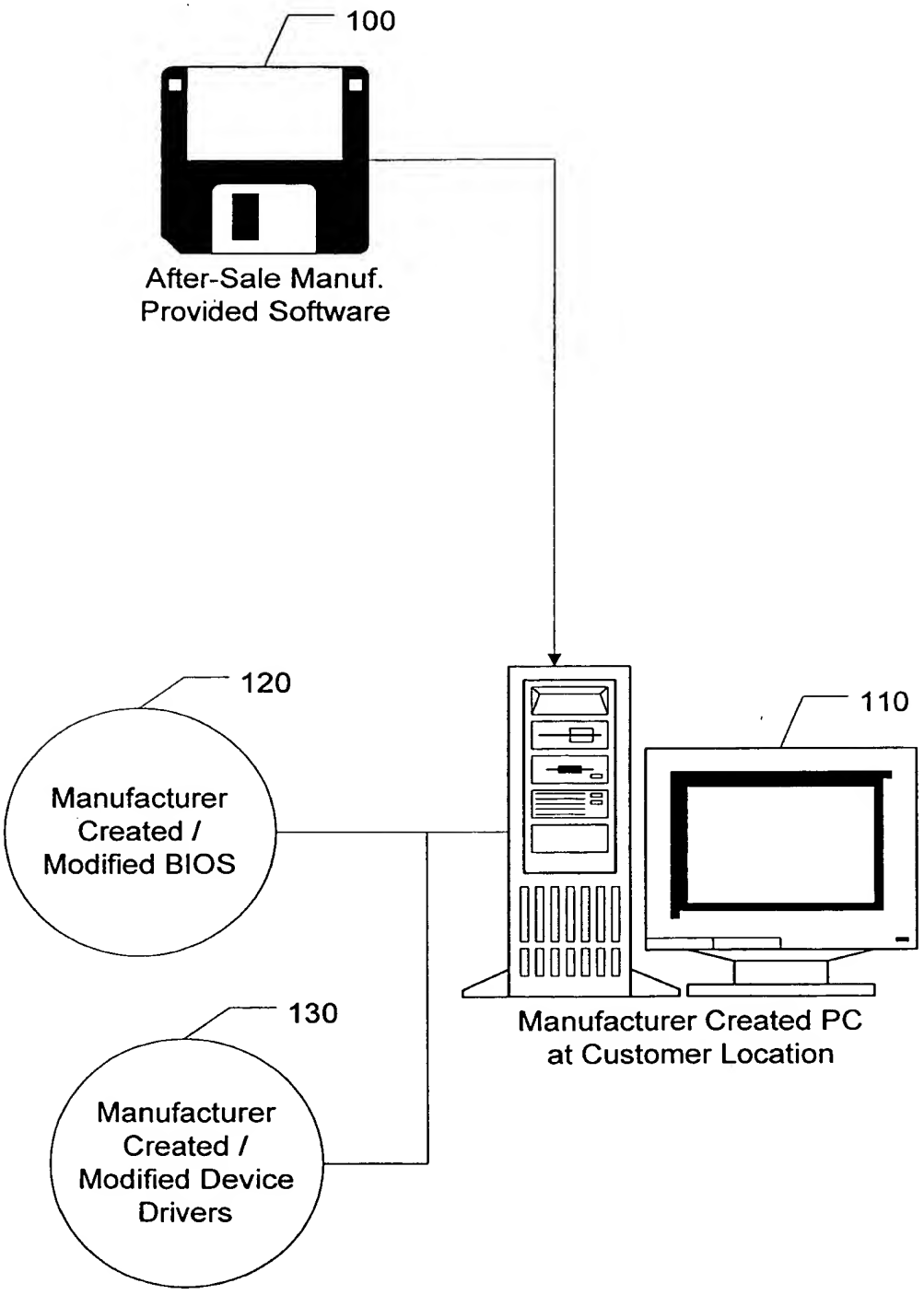
100
After-Sale Manuf.
Provided Software
120
Manufacturer
Created /
Modified BIOS
110
130
Manufacturer
Created /
Modified Device
Drivers
Manufacturer Created PC
at Customer Location

Figure 1

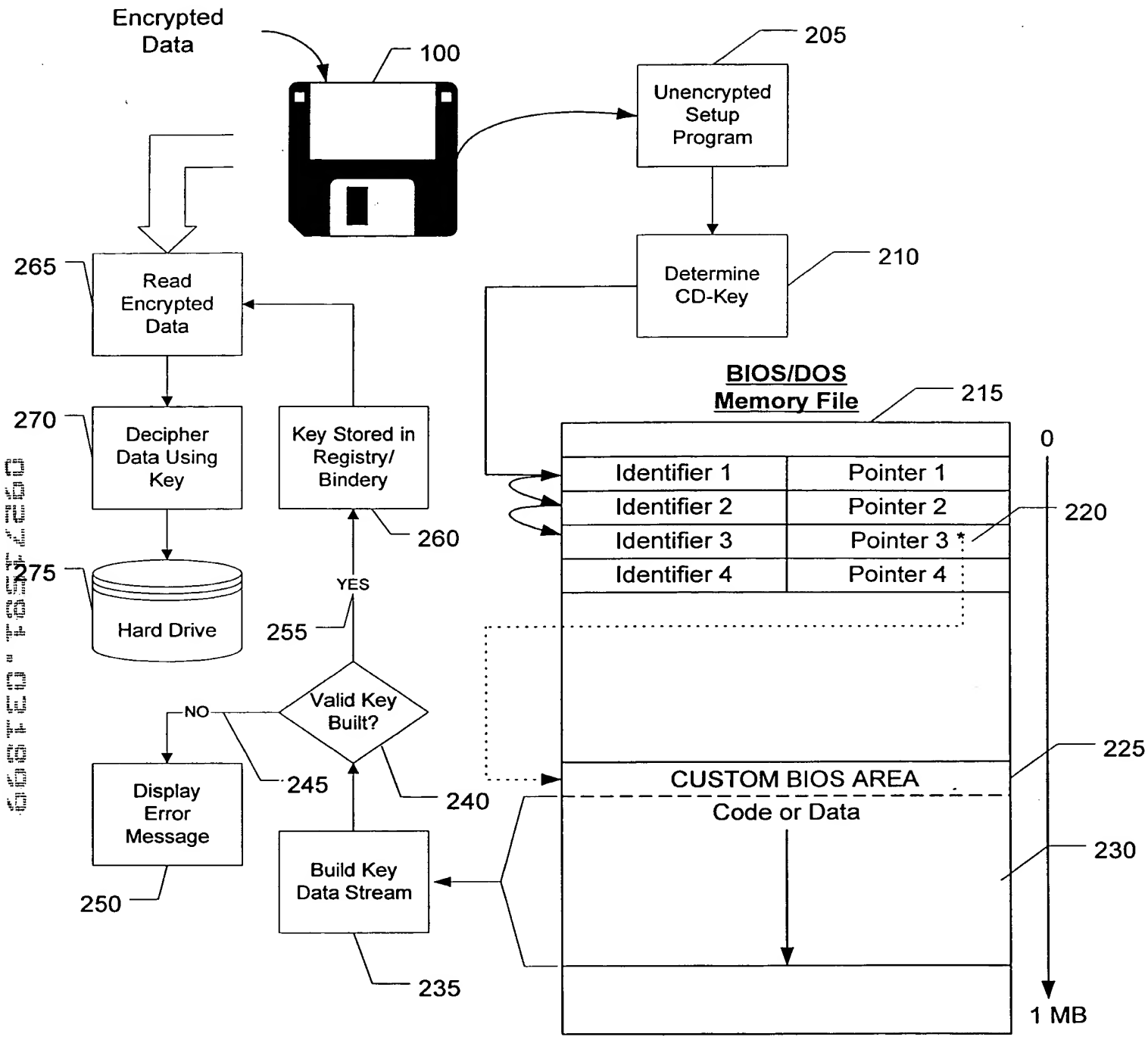
Encrypted Data
100
205
Unencrypted Setup Program
265
Read Encrypted Data
210
Determine CD-Key
BIOS/DOS Memory File
215
270
Decipher Data Using Key
Key Stored in Registry/ Bindery
260
0
Identifier 1
Pointer 1
Identifier 2
Pointer 2
220
Identifier 3
Pointer 3
Identifier 4
Pointer 4
275
Hard Drive
YES
255
Valid Key Built?
NO
245
240
225
CUSTOM BIOS AREA
Code or Data
Display Error Message
250
Build Key Data Stream
230
235
1 MB

Figure 2

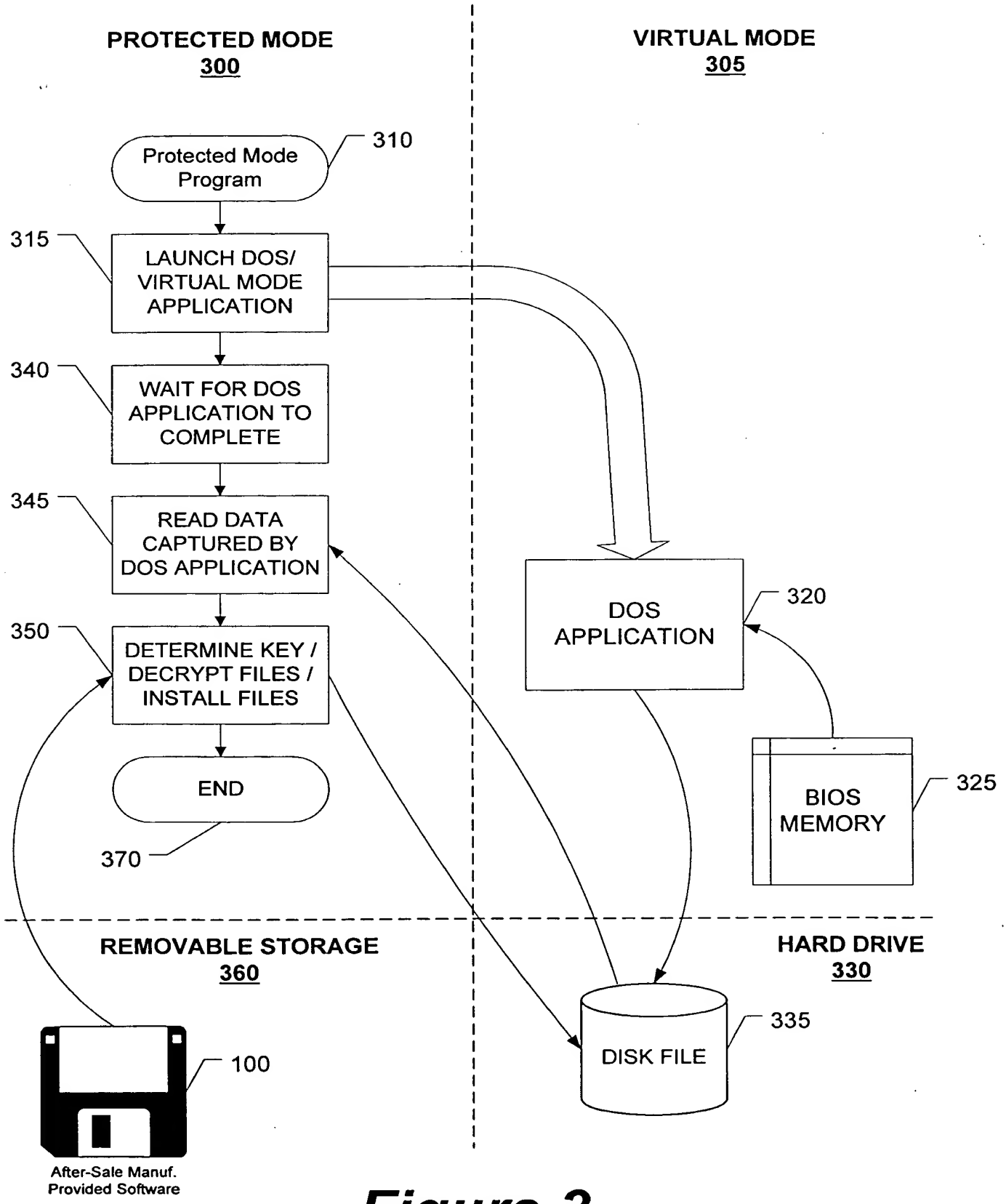
PROTECTED MODE
300
VIRTUAL MODE
305
Protected Mode Program
310
315
LAUNCH DOS/ VIRTUAL MODE APPLICATION
340
WAIT FOR DOS APPLICATION TO COMPLETE
345
READ DATA CAPTURED BY DOS APPLICATION
350
DETERMINE KEY / DECRYPT FILES / INSTALL FILES
END
370
DOS APPLICATION
320
BIOS MEMORY
325
REMOVABLE STORAGE
360
HARD DRIVE
330
DISK FILE
335
100
After-Sale Manuf. Provided Software

Figure 3

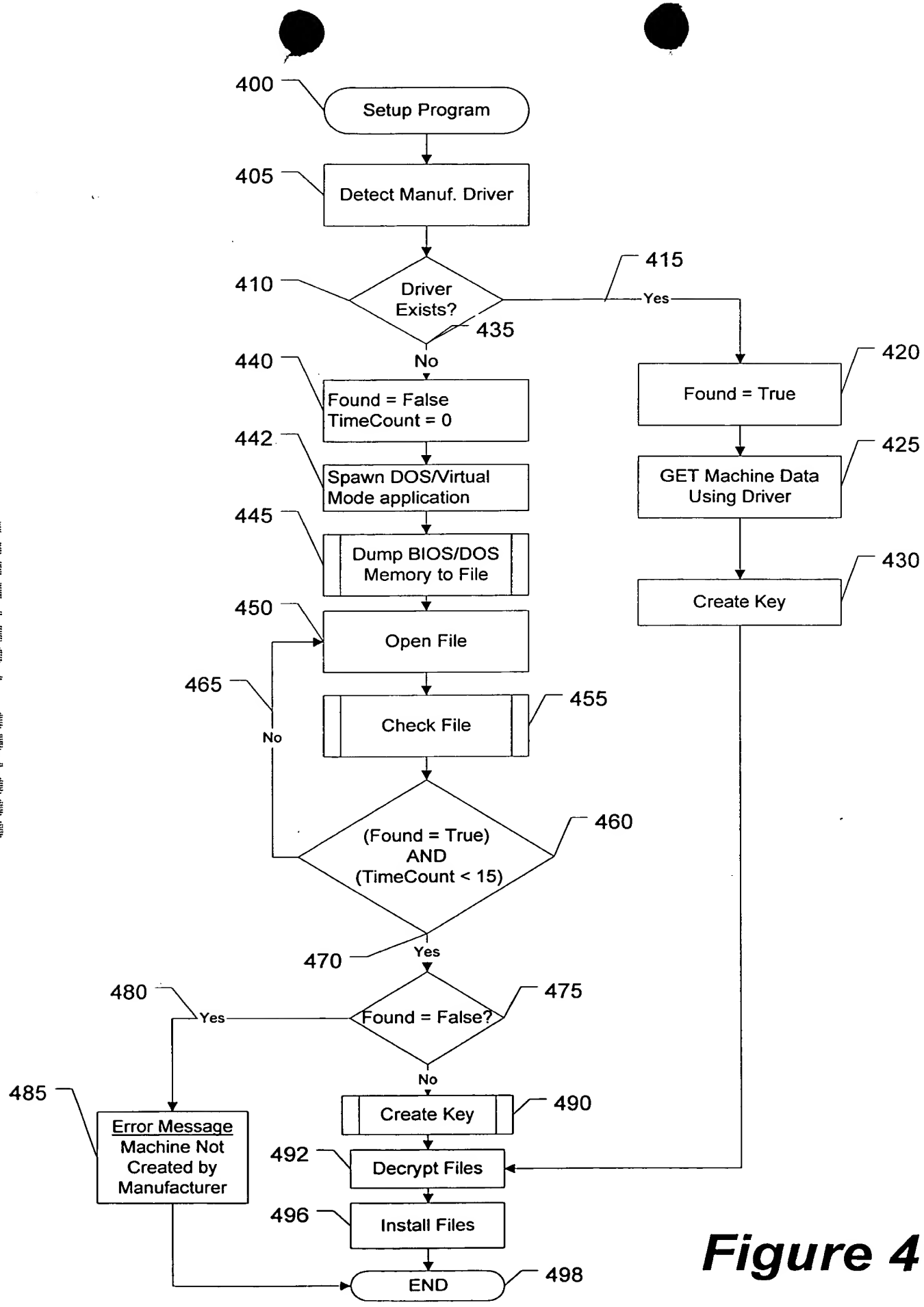
400
Setup Program
405
Detect Manuf. Driver
410
Driver Exists?
415
Yes
435
No
440
Found = False
TimeCount = 0
442
Spawn DOS/Virtual Mode application
445
Dump BIOS/DOS Memory to File
450
Open File
465
No
455
Check File
460
(Found = True) AND (TimeCount < 15)
470
Yes
480
Yes
475
Found = False?
No
485
Error Message
Machine Not Created by Manufacturer
490
Create Key
492
Decrypt Files
496
Install Files
498
END
420
Found = True
425
GET Machine Data Using Driver
430
Create Key

Figure 4

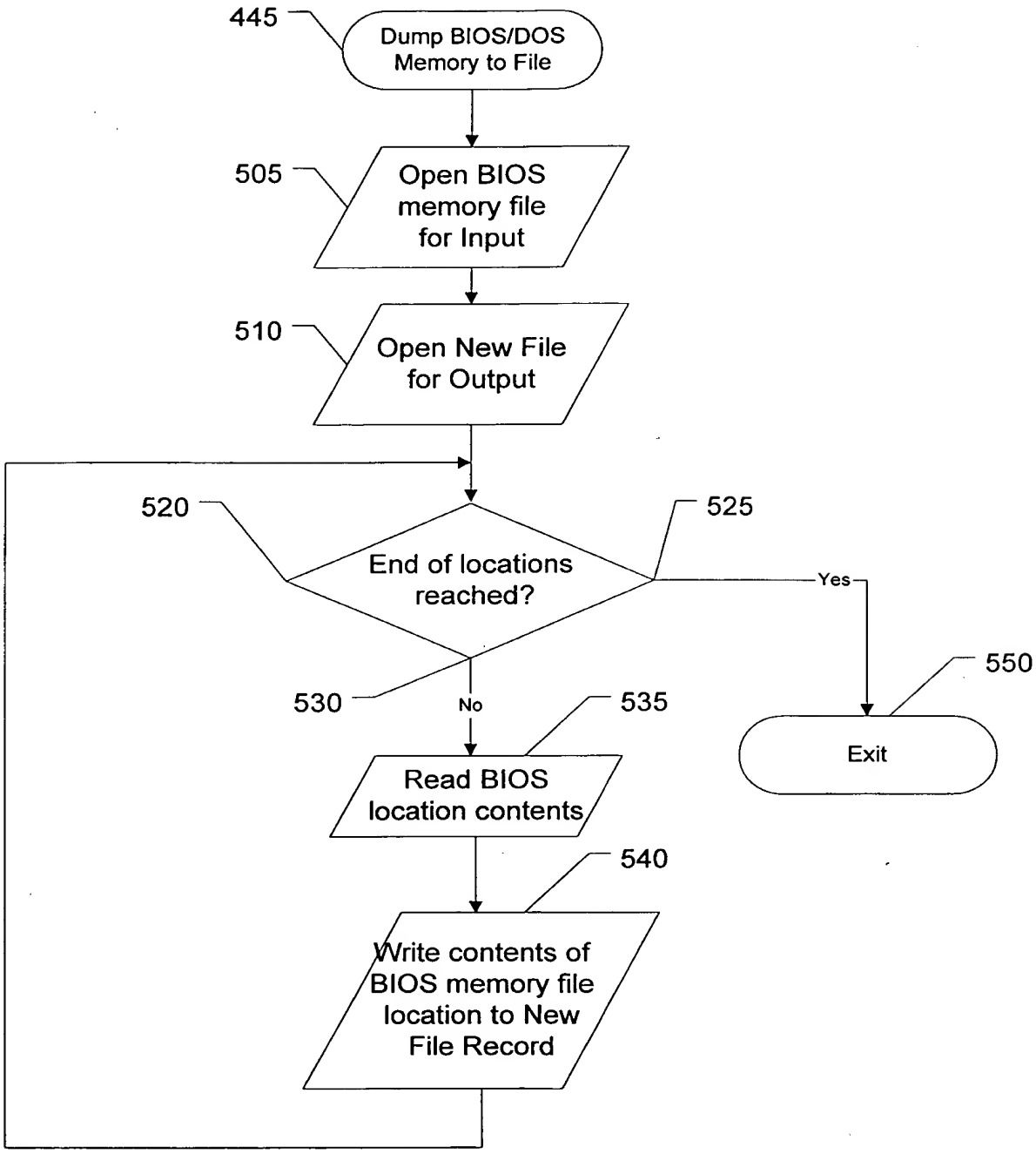
445
Dump BIOS/DOS Memory to File
505
Open BIOS memory file for Input
510
Open New File for Output
520
End of locations reached?
525
Yes
550
Exit
530
No
535
Read BIOS location contents
540
Write contents of BIOS memory file location to New File Record

Figure 5

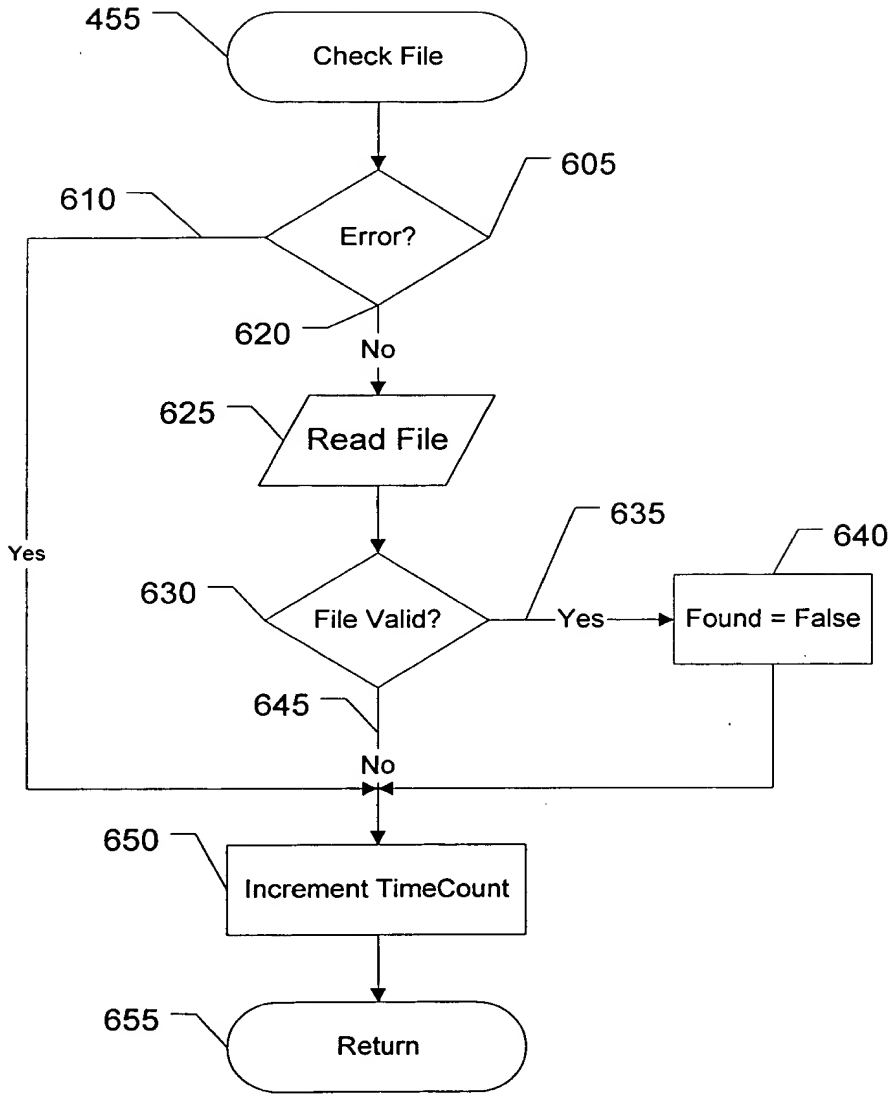
455
Check File
605
610
Error?
620
No
625
Read File
635
640
Yes
630
File Valid?
Yes
Found = False
645
No
650
Increment TimeCount
655
Return

Figure 6

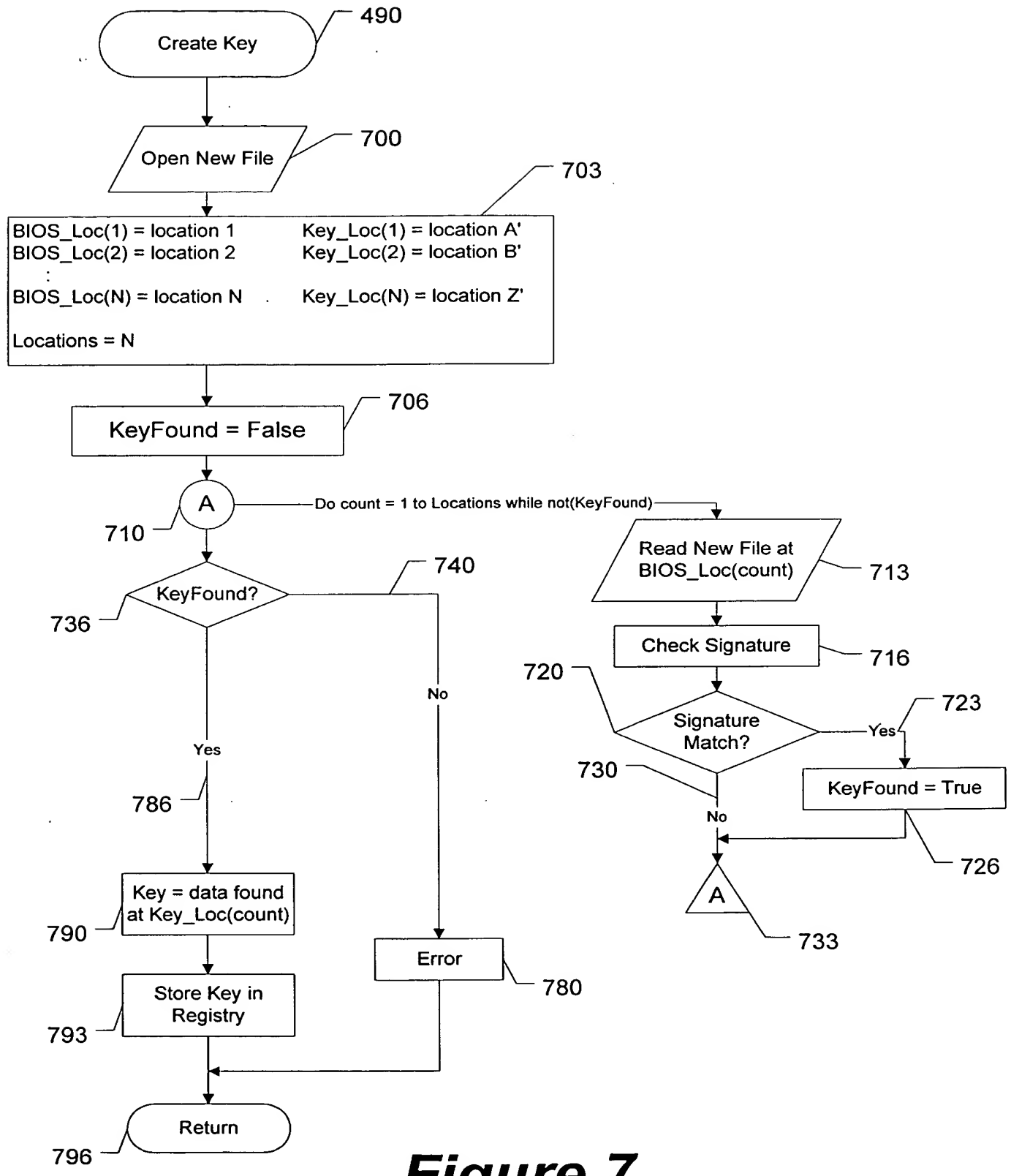
Create Key
490
Open New File
700
703
BIOS_Loc(1) = location 1
BIOS_Loc(2) = location 2
BIOS_Loc(N) = location N
Locations = N
Key_Loc(1) = location A'
Key_Loc(2) = location B'
Key_Loc(N) = location Z'
KeyFound = False
706
A
710
Do count = 1 to Locations while not(KeyFound)
KeyFound?
736
740
Yes
786
No
Key = data found at Key_Loc(count)
790
Error
780
Store Key in Registry
793
Return
796
Read New File at BIOS_Loc(count)
713
Check Signature
716
720
Signature Match?
730
Yes
723
KeyFound = True
726
No
A
733

Figure 7